ACTAAP

Arkansas Comprehensive Testing, Assessment, and Accountability Program

Teacher Handbook

Augmented Benchmark Examination
Grade 7

April 2015 Administration

Arkansas Department of Education

PAGE

The Arkansas Comprehensive Testing, Assessment, and Accountability Program (ACTAAP) includes an Augmented Benchmark Examination for seventh-grade students. It consists of multiple-choice and open-response items that directly assess student knowledge relative to science. The Arkansas Curriculum Frameworks are the basis for development of the Augmented Benchmark Examination.

In April 2015, seventh-grade students participated in the *Grade 7 Augmented Benchmark Examination*. Results of this examination will be provided to all students, schools, and districts to be used as the basis for instructional change.

This handbook provides information about the scoring of student responses to one open-response item in science. It describes the scoring procedures and the scoring criteria (rubrics) used to assess student responses. Copies of actual student responses are provided, along with scores given to those responses, to illustrate how the scoring criteria were applied in each content area.

Additional information about the *Grade 7 Augmented Benchmark Examination* is available through the Arkansas Department of Education. Questions can be addressed to the Office of Student Assessment at 501-682-4558.

The multiple-choice and open-response test items for the *Grade 7 Augmented Benchmark Examination* are developed with the assistance and approval of Content Advisory Committees. All passages and items on the *Grade 7 Augmented Benchmark Examination* are based on the Arkansas Curriculum Frameworks and developed with the assistance and approval of Content Advisory Committees and Bias Review Committees. These committees comprise active Arkansas educators with expertise in science.

While multiple-choice items are scored by machine to determine if the student chose the correct answer from four options, responses to open-response items must be scored by trained "readers" using a pre-established set of scoring criteria.

Reader Training

Readers are trained to score only one content area. All readers who qualify for scoring Arkansas Benchmark Science will have a four year college degree.

Before readers are allowed to begin assigning scores to any student responses, they go through intensive training. The first step in that training is for the readers to read the open-response item as it appeared in the test booklet and to respond—just as the student test takers are required to do. This step gives the readers some insight into how the students might have responded. The next step is the readers' introduction to the scoring rubric. All of the specific requirements of the rubric are explained by the Scoring Director who has been specifically trained to lead the scoring group. Then responses (anchor papers) that illustrate the score points of the rubric are presented to the readers and discussed. The goal of this discussion is for the readers to understand why a particular response (or type of response) receives a particular score. After discussion of the rubric and anchor papers, readers practice scoring sets of responses that have been pre-scored and selected for use as training papers. Detailed discussion of the responses and the scores they receive follows.

After three or four of these practice sets, readers are given "qualifying rounds." These are additional sets of pre-scored papers, and, in order to qualify, each reader scoring responses must score in exact agreement on at least 80% of the responses. Readers who do not score within the required rate of agreement are not allowed to score the *Grade 7 Augmented Benchmark Examination* responses.

Once scoring of the actual student responses begins, readers are monitored constantly throughout the project to ensure that they are scoring according to the criteria. Daily and cumulative statistics are posted and analyzed, and the Scoring Director or Team Leaders reread selected responses scored by the readers. These procedures promote reliable and consistent scoring. Any reader who does not maintain an acceptable level of agreement is dismissed from the project.

Scoring Procedures

All student responses to the *Grade 7 Augmented Benchmark Examination* open-response test items are scored independently by two readers. Those two scores are compared, and responses that receive scores that are non-adjacent (a "1" and a "3," for example) are scored a third time by a Team Leader or the Scoring Director for resolution.

This Teacher Handbook includes the science open-response item as it appeared in this year's test. The specific scoring rubric and annotated response for each score point of the rubric follows. The goal is for classroom teachers and their students to understand how responses are scored. It is hoped that this understanding will help students see what kind of performance is expected of them on the *Grade 7 Augmented Benchmark Examination*.

A A student mixes table salt and water to make a solution.

1. Identify the solvent for this solution.
2. Identify the solute for this solution.
3. Explain why a solution is considered a mixture.
4. Describe how the table salt could be separated from the water.

BE SURE TO LABEL YOUR RESPONSES 1, 2, 3, AND 4.

Science Item A Scoring Rubric—2015 Grade 7

Score	Description
4	Response shows a complete understanding of distinguishing among solvent, solute, and solution. The response to all parts of the task is correct and complete.
3	Response shows a nearly complete understanding of distinguishing among solvent, solute, and solution. The response may contain minor errors.
2	Response shows a limited understanding of distinguishing among solvent, solute, and solution. The response may contain a major error.
1	Response shows a minimal understanding of distinguishing among solvent, solute, and solution. The response may be incomplete or contain a major error.
0	Response shows insufficient understanding of distinguishing among solvent, solute, and solution. The response contains major errors or is irrelevant.

SOLUTION AND SCORING

Part	Points
1	**1 point possible:** 1 point for correctly identifying the solvent
2	**1 point possible:** 1 point for correctly identifying the solute
3	**1 point possible:** for a complete explanation
4	**1 point possible:** for a complete description

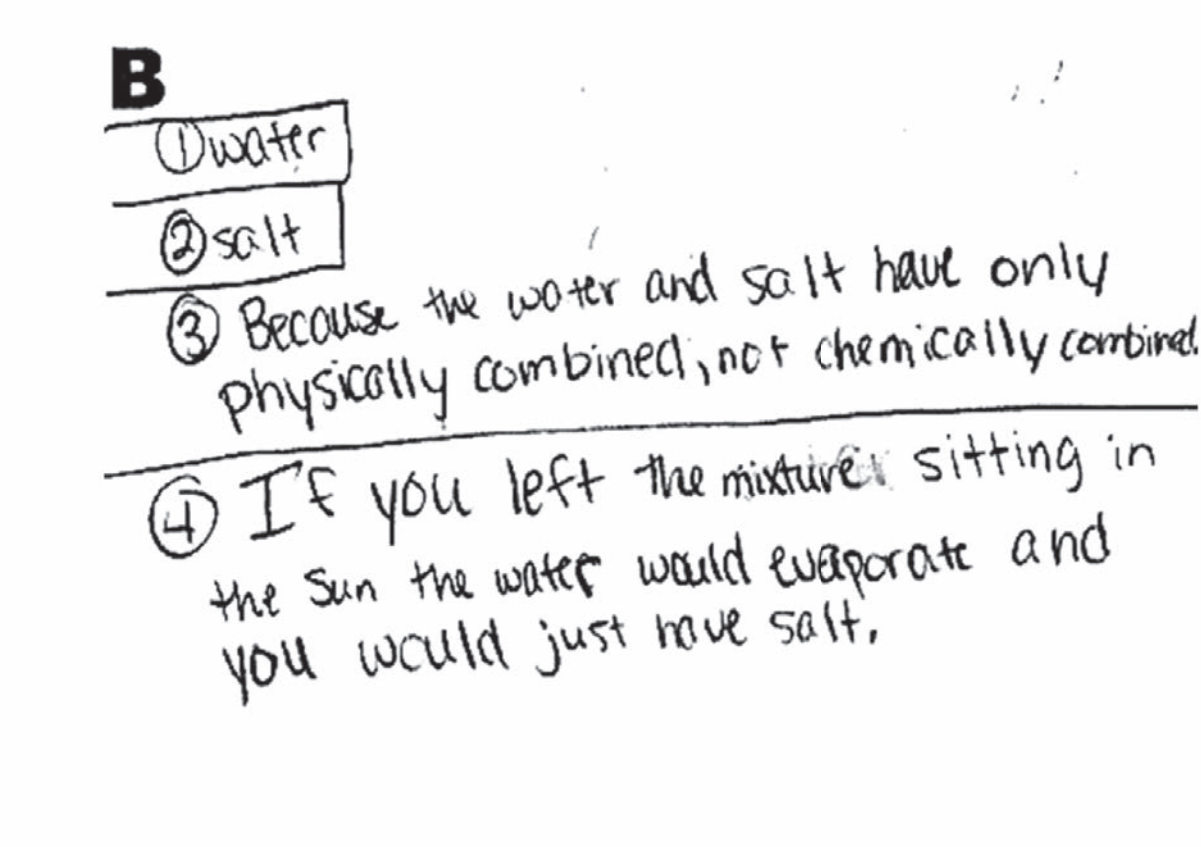
SCORE: 4

Part 1:		**Points**
Correct Identification	"water"	1

Part 2:		**Points**
Correct Identification	"salt"	1

Part 3:		**Points**
Correct Explanation	"have only physically combined, not chemically combined."	1

Part 4:		**Points**
Correct Description	"left the mixture sitting in the sun the water would evaporate and you would just have salt."	1
	Total Points	**4**


B

① water

② salt

③ Because the water and salt have only physically combined, not chemically combined.

④ If you left the mixture sitting in the sun the water would evaporate and you would just have salt.

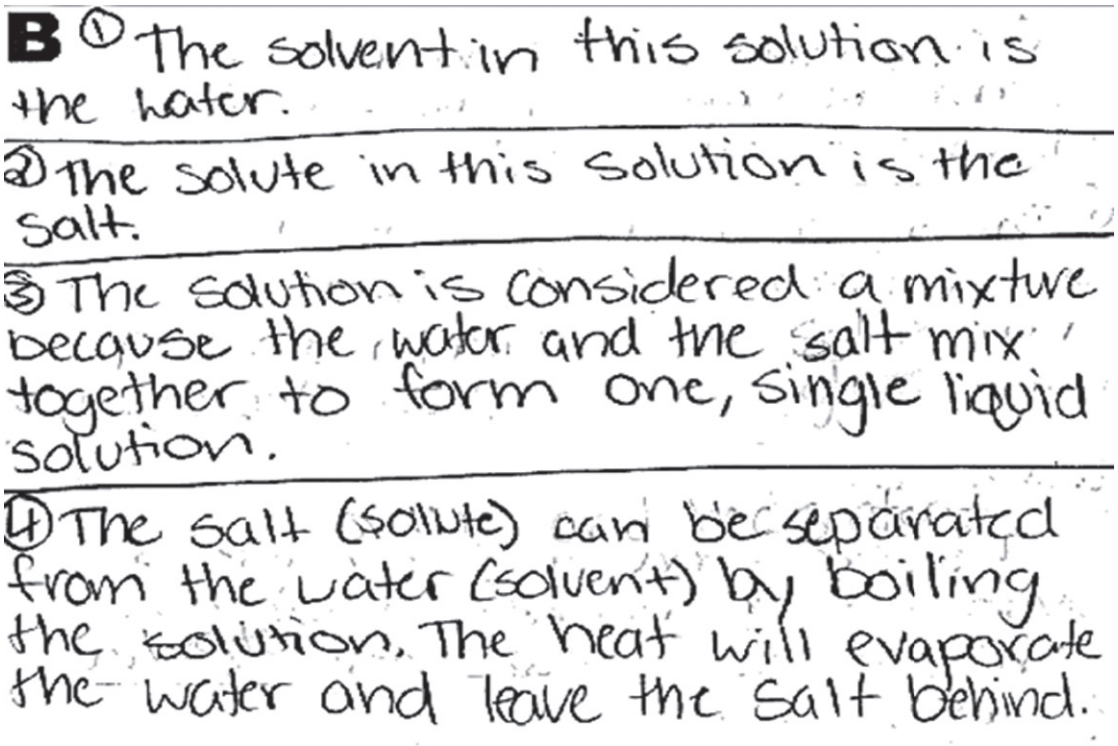
SCORE: 3

Part 1:		**Points**
Correct Identification	"water"	1

Part 2:		**Points**
Correct Identification	"salt"	1

Part 3:		**Points**
Incorrect Explanation	"because the water and the salt mix together to form one, single liquid solution."	–

Part 4:		**Points**
Correct Description	"boiling the solution. The heat will evaporate the water and leave the salt behind."	1
	Total Points	**3**


B ① The solvent in this solution is the water.

② The solute in this solution is the salt.

③ The solution is considered a mixture because the water and the salt mix together to form one, single liquid solution.

④ The salt (solute) can be separated from the water (solvent) by boiling the solution. The heat will evaporate the water and leave the salt behind.

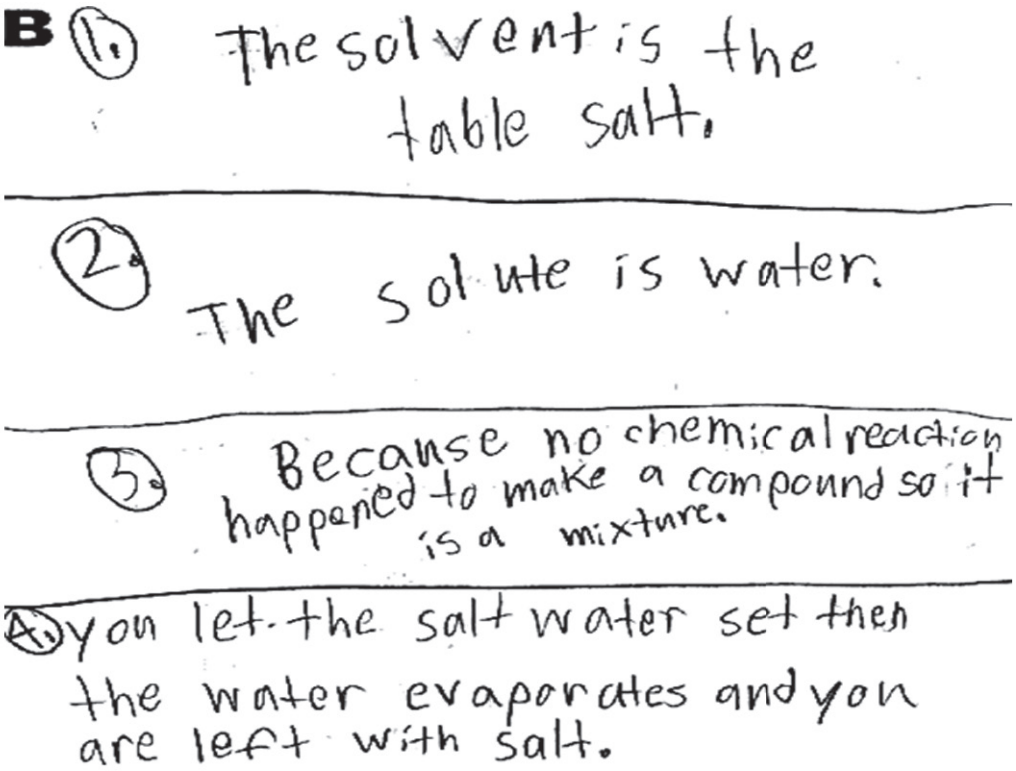
SCORE: 2

Part 1:		**Points**
Incorrect Identification	"table salt"	–

Part 2:		**Points**
Incorrect Identification	"water"	–

Part 3:		**Points**
Correct Explanation	"because no chemical reaction happened to make a compound"	1

Part 4:		**Points**
Correct Description	"let the salt water set then the water evaporates and you are left with salt."	1
	Total Points	**2**



SCORE: 1

Part 1:		**Points**
Incorrect Identification	"mixing"	–

Part 2:		**Points**
Correct Identification	"salt"	1

Part 3:		**Points**
Incorrect Explanation	"because the salt is mixing with water"	–

Part 4:		**Points**
Incorrect Description	"filltration"	–
	Total Points	**1**

B

1. The solvent for this solution is mixing.
2. The solute for this soulution is salt.
3. Solution is considered a mixture because the salt is mixing with water making a solution.
4. The table salt could be seperated from the water by the process of filltration.

* A Student Mixes table salt and water to make a solution.

1 2 3

SCORE: 0

Part 1:		**Points**
Incorrect Identification	"table salt"	–

Part 2:		**Points**
Incorrect Identification	"water"	–

Part 3:		**Points**
Incorrect Explanation	"because it helps seperate the solvent from the solute."	–

Part 4:		**Points**
Incorrect Description	"Add more water."	–
	Total Points	**0**

B

1. The solvent is table salt.
2. The solute is water
3. A solution is considered a mixture because it helps seperate the solvent from the solute.
4. Add more water.

ACTAAP

Arkansas Comprehensive Testing, Assessment, and Accountability Program

Developed for the Arkansas Department of Education, Little Rock, AR 72201

QAI 13999-AR1502-THB-GR7

QAI13999